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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,417	03/10/2004	Robert W. Hjelmeland	DP-310378	4132

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EXAMINER	
DANIELSEN, NATHAN ANDREW	
ART UNIT	**PAPER NUMBER**
2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,417	HJELMELAND, ROBERT W.	
	Examiner	Art Unit	
	Nathan Danielsen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *15-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-22 are pending.

Claim Objections

2. Claims 28 and 33 are objected to because of the following informalities: "a read/write head, a radially outermost tip of said at least one propeller being closer to said hub in a radial direction than is said read/write head" should be changed to --a read/write head, wherein a radially outermost tip of said at least one propeller ~~being~~ is closer to said hub in a radial direction than is said read/write head-- such that these claims will be in the same format as the other pending claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 28-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanouda (JP Patent Application Publication 08-279242).

Regarding claim 28, Kanouda discloses a device for at least one of reading and writing to a compact disc (title), comprising:

a hub configured to retain the compact disc (figure 2);

at least one propeller attached to said hub, said at least one propeller extending radially outwardly from said hub (figure 2);

an actuator coupled to said hub and configured to rotate said hub such that said at least one propeller moves air about the compact disc (abstract and figure 2); and

a read/write head, a radially outermost tip of said at least one propeller being closer to said hub in a radial direction than is said read/write head (inherent in the device of figure 2 as the

read/write head cannot physically contact the propellers of figure 2 when a disc is located on the device of figure 2).

Regarding claim 29, Kanouda discloses a device for at least one of reading and writing to a compact disc (title), comprising:

a hub configured to retain the compact disc (figure 2);

at least one propeller attached to said hub, said at least one propeller extending radially outwardly from said hub (figure 2); and

an actuator coupled to said hub and configured to rotate said hub such that said at least one propeller moves air about the compact disc (abstract and figure 2);

wherein said at least one propeller has a pitch such that air is moved toward the compact disc when said actuator rotates said hub (figure 2).

Regarding claim 30, Kanouda discloses a device for at least one of reading and writing to a compact disc (title), comprising:

a hub configured to retain the compact disc (figure 2);

a plurality of propellers attached to said hub (figure 2); and

an actuator coupled to said hub and configured to rotate said hub such that said at least one propeller moves air about the compact disc (figure 2);

wherein said plurality of propellers each include a top surface and a bottom surface, said bottom surfaces facing said actuator, said top surfaces of said plurality of propellers defining a plane, said hub having an axis of rotation, said plane being non-perpendicular to the axis of rotation (figure 2; where, due to the inclination of the propellers 15, a point on the uppermost edge of the top surface of one propeller and a point on the lowermost edge of the top surface of the opposite propeller will define a line contained by a plane which is non-perpendicular to the axis of rotation).

Regarding claim 31, Kanouda discloses where an angle between said plane and said axis of rotation is approximately between 60° and 89° (figure 2; where, due to the inclination of the propellers 15, a point on the uppermost edge of the top surface of one propeller and a point on the lowermost edge of

the top surface of the opposite propeller will define a line contained by a plane which is non-perpendicular to the axis of rotation and contained within this claimed range).

Regarding claim 32, Kanouda discloses where said plurality of propellers are configured to move air adjacent a read/write side of the compact disc (abstract and figure 2).

Regarding claim 33, Kanouda discloses where the device further comprises a read/write head, a radially outermost tip of said plurality of propellers being closer to said hub in a radial direction than is said read/write head(inherent in the device of figure 2 as the read/write head cannot physically contact the propellers of figure 2 when a disc is located on the device of figure 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 15, 17-20, 23, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yabushita (US Patent Application Publication 2001/0015951), in view of Okamoto (JP Patent Application Publication 01-171144, with reference to the official English translation listed on the form PTO-892 accompanying this action).

Regarding claims 15, 23, and 24, Yabushita discloses a method for processing a compact disc (and corresponding apparatus), comprising:

placing the compact disc on a rotatable hub such that a through hole of the compact disc receives said hub (¶ 14 and figures 4-7);

engaging the compact disc with a clamper such that the compact disc is biased farther onto said hub (¶ 14 and figures 4-7);

attaching said clamper to said hub (¶ 14 and figure 5); and

rotating said hub such that the compact disc and said clamper also rotate (¶ 14 and figures 4-7).

However, Yabushita fails to disclose where the clamper comprises a fan device and, where said fan device moves air about the compact disc to thereby carry heat away from the compact disc.

In the same field of endeavor, Okamoto discloses where the clamper comprises a fan device (figure 8), and where said fan device moves air about the compact disc to thereby carry heat away from the compact disc (page 4: "Effect").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Yabushita with the device of Okamoto, for the purpose of eliminating the need for a special motor for generating air flow in an optical disc device (page 4: "Effect").

Regarding claims 17 and 18, Yabushita, in view of Okamoto, discloses everything claimed, as applied to claim 15. However, Yabushita fails to disclose where the rotating step includes blowing air on the CD.

In the same field of endeavor, Okamoto discloses where said rotating step includes blowing air toward the compact disc or drawing air away from the compact disc (figure 2; where one skilled in the art would be able to control the direction of flow of the air drawn through the fan by changing the orientation of the fan blades).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Yabushita with the device of Okamoto, for the purpose of eliminating the need for a special motor for generating air flow in an optical disc device (page 4: "Effect").

Regarding claims 19 and 26, Yabushita, in view of Okamoto, discloses everything claimed, as applied to claims 15 and 23, respectively. Additionally, Yabushita discloses where said engaging step includes using a compression arm to push said fan device into engagement with the compact disc (¶ 14 and figures 4-7).

Regarding claims 20 and 27, Yabushita, in view of Okamoto, discloses everything claimed, as applied to claims 15 and 26, respectively. However, Yabushita fails to disclose where said compression arm is integrally formed with said fan device.

In the same field of endeavor, Okamoto disclose where said compression arm is integrally formed with said fan device (figures 4-6 and 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Yabushita with the device of Okamoto, for the purpose of eliminating the need for a special motor for generating air flow in an optical disc device (page 4: "Effect").

7. Claims 16, 21, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yabushita, in view of Okamoto, and further in view of Applicant's admitted prior art (hereinafter the AAPA).

Regarding claims 16 and 25, Yabushita, in view of Okamoto, discloses everything claimed, as applied to claims 15 and 23, respectively. However, Yabushita, in view of Okamoto, fails to explicitly disclose how the clamping member including the fan is held in place.

In the same field of endeavor, the AAPA discloses where said attaching step includes placing the clamping member on the hub such that a through hole of said fan device receives said hub with a friction fit (¶ 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a friction fit to hold a clamping member in contact with a disc, for the purpose of holding the disc in place so the read head can read data from it (¶s 28 and 29).

Regarding claim 21, Yabushita, in view of Okamoto, discloses everything claimed, as applied to claim 15. Additionally, Yabushita discloses where said attaching step includes using a compression arm to push the clamper onto said hub device (¶ 14 and figures 4-7). However, Yabushita, in view of Okamoto, fails to disclose where said fan device is pushed onto said hub with a friction fit.

In the same field of endeavor, the AAPA discloses where said fan device is pushed onto said hub with a friction fit (¶ 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a friction fit to hold a clamping member in contact with a disc, for the purpose of holding the disc in place so the read head can read data from it (¶s 28 and 29).

Regarding claim 22, Yabushita, in view of Okamoto and the AAPA, discloses everything claimed, as applied to claim 21. However, Yabushita fails to disclose where said compression arm is integrally formed with said fan device.

In the same field of endeavor, Okamoto disclose where said compression arm is integrally formed with said fan device (figures 4-6 and 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Yabushita with the device of Okamoto, for the purpose of eliminating the need for a special motor for generating air flow in an optical disc device (page 4: "Effect").

Response to Arguments

8. Applicant's arguments, see pages 9-14, filed 18 December 2006, with respect to the rejection(s) of claim(s) 15-22 under 35 U.S.C. 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yabushita and Okamoto, as shown above.

Closing Remarks/Comments

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen
01/19/2007 ND

THANG V. TRAN
PRIMARY EXAMINER